To: Erin Uloth, District Ranger

Mt. Baker Ranger District

810 State Route

20 Sedro-Woolley, WA 98284

Transmitted Via Email to: https://cara.ecosystem-management.org/Public//CommentInput?Project=58218

2 April 2021

**RE: Draft Environmental Assessment for North Fork Nooksack Vegetation Management Project #58218**

Dear District Ranger Uloth,

We appreciate the opportunity to comment on the draft Environmental Assessment (EA) for the North Fork Nooksack Vegetative Management Project. Years of past logging efforts in conjunction with fire suppression and other environmental disturbances have left much of this land covered in dog-hair stands that are homogenous and devoid of structural and species diversity. We welcome the restorative components in this plan that will accelerate succession and result in older forest characteristics. We have concerns and questions, however, about some of the proposed timber harvesting that is in the plan.

RE Sources is a non-profit organization located in northwest Washington and founded in 1982. We work to protect the health of northwest Washington's people and ecosystems through the application of science, education, advocacy, and action. Our priority programs include Protecting the Salish Sea, Freshwater Restoration, Climate Action, and Fighting Pollution–all critical issues affecting our region. Our North Sound Baykeeper is also a member of the Waterkeeper Alliance, with over 300 organizations in 34 countries around the world that promote fishable, swimmable, drinkable water. RE Sources has thousands of supporters in Whatcom, Skagit, and San Juan counties, and we submit these comments on their behalf.

*Carbon Sequestrations also needs to be a priority:*

The EA for this project revolves around five listed needs: increase habitat for marbled murrelet and northern spotted owls; improve forests conditions within Riparian Reserves, manage stands to be more resilient; increase forage habitat; and manage the forest for recreation, Tribal Treaty Rights, and as a revenue source. We feel that this list should also include “increasing the carbon sequestration potential of the area” because global climate change may ultimately determine the success of this project in the long-term.

The documents used to evaluate and design this management plan (The North Fork Watershed Analysis, Canyon Creek Watershed Analysis, and NW Forest Plan) do not adequately reflect the current needs of our environment, particularly the need to keep carbon fixed in our forests and soils. The NW Forest Plan (1994) was written with a focus on ecological forestry, with special regards to northern spotted owl and the marbled murrelet habitat. While these are still important considerations, it is imperative that we also address climate change. Until recently, forests in the United States sequestered carbon at a rate of 80 million metric tons/yr (80 Tg/yr) but in 2020, our forests reached a carbon equilibrium meaning they are currently losing as much carbon to the atmosphere as they are taking in.1 This will exacerbate climate change and could significantly impact the United States financially. One report estimates that by 2100, the US could spend almost $1.9 trillion a year on impacts from hurricanes, real estate losses, energy costs, and water costs.2

Pacific Northwest trees are very productive and keeping them in the ground could assuage climate related disasters and could offset any profits earned from selling timber - research shows that older stands sequester and hold more carbon than young stands.3 We would like to see a long term carbon budget be incorporated into this plan and we request that the Forest Service conduct a cost benefit analysis that considers keeping trees in the ground versus harvesting them to be sold on the market. We would like to see this area managed for forest health, habitat, resiliency, and rigor.

*Variable Retention Harvest and forage habitat:*

In Alternative 1, variable retention harvest is proposed to occur on 852 acres of matrix designated land. In regards to this treatment, on p. 8 the EA states, “ “Forest openings would vary in size and range from 10-75% of the treatment area depending on soil productivity with 60% being optimum.” And on p. 16 it states, “The variable retention harvest system would retain 10-75% of the treatment area with approximately 30% being the optimum amount of the preharvest stand retained as patches, plus some additional retention of individual green trees that are intended to become snags and logs (Franklin and Johnson, 2012).” Does the 10-75% refer to the number of trees *retained* or to the *size of the openings*? The difference between 10% retained and 10% opening is dramatic. If the openings average 60% and the amount of trees retained average 30%, what accounts for the remaining 10%? We also request clarity on how large the clearings will be in the variable retention harvest. The Wildlife Effect Analysis reports that a total of 250 acres of opening will be created but does not specify how large each clearing will be. It is mentioned that the gaps created in the variable density thinning will range from ½ to 3 acres but, again, there is ambiguity on the size and extent of the clearings that will occur in the variable retention harvest. Please provide clarity on the exact intentions of the variable retention harvest for Alternative 1.

The EA reports that the 852 acres of variable retention harvest will provide forage habitat to a variety of wildlife species and the initial list of needs on p. 5 indicate that elk and deer habitat are of particular importance. The EA claims that Alternative 2, without the use of variable retention harvest, the project “would be greatly limited in the ability to generate adequate forage and complex early seral habitat.” The Wildlife Effects Analysis further claims that Alternative 1 would double (from 1% to 2%) the amount of “excellent” DDE (Dietary Digestible Energy) made available. We have questions and concerns regarding these last two claims.

The model that Rowlend et al. (2018)4 formulated for elk nutrition and habit use includes 4 covariates: DDE, distance to nearest road open to motorized use by the public, distance to cover-forage edge, and slope. In sum, elk prefer habitat that is far from roads, close to cover-forage edge, on gentle slopes, and relatively high in DDE. We feel that the EA and Wildlife Analysis don’t incorporate these other factors, particularly distance to cover-forage edge and roads, when evaluating the effectiveness of the two alternatives at creating quality forage. Because we do not know the size or extent of the clearings that are proposed for the variable retention harvest in Alternative 1, it appears likely that these clearings will be large and near roads which will make them less suitable as elk forage. The ½ to 3 acre gaps created by variable retention thinning seem more aligned with beneficial elk habitat creation as elk will have access to high quality food *and* be close to refuge.

*Size Class Decision:*

Alternative 2 limits the removal of trees to those that are 20” or less in DBH (diameter at breast height) and says that this will limit the ability to reduce the stand density to the desired 35% of SDI Max and therefore curtail the attempts of speeding up succession on some stands. We would like clarity on why 20” was chosen and to know if there is an ecological explanation for choosing this size class as a cut off point.

*Tribal Treaty Rights:*

Incorporated into the last need for the Project on p. 5 is the mention of “the need to maintain access to...Tribal treaty right activities,” and there is a description of the historical uses of this land by the Coast Salish People. Because this land falls within the usual and accustomed hunting and fishing grounds of the Coast Salish Tribes we feel that they should be actively included and involved in the Project planning and execution, government to government. Coast Local tribes should not only be consulted but their concerns addressed and incorporated into the final document. Indigenous peoples have been using fire management for *thousands* of years to encourage the creation of meadows that will support browse for deer and elk and the growth of culturally important plants such as bear grass, camas, and huckleberries.5 Because these management practices fit the needs of this Project, it appears that local tribes would be a valuable asset in making this Project a success.

*In Conclusion:*

There is convincing evidence that the area incorporated in this Project could benefit from restoration efforts. According to the Wildlife Analysis, 44% of this area is considered marginal habitat for spotted owls and murrelets and with no treatment these stands will take longer to acquire the necessary old stand characteristics these species and others require. Our assessment is that thinning, both pre-commercial and commercial, can meet the diverse needs laid out in the Project6. Variable retention harvests, or modified clearcuts, dramatically change the environment and have little environmental benefit and should not be considered.7 For this reason we support **Alternative 2** over Alternative 1. We would like additional clarity, as indicated above, on the reason for selecting 20” diameter trees as a cutoff point.

This Project area is unique in that it holds special value to many different stakeholders including recreationists, environmentalists, Tribes, loggers, miners, fishers, and hunters. In addition it has unique geological features and is a refuge for diverse wildlife including ESA listed species. The passion and interest in this Project is showcased in the thousand plus letters that have already been submitted with most people requesting increased environmental protection for this area.

We are optimistic that the Forest Service can create a management plan that provides the much needed restoration to this area but also considers the long term climate effects and habitat destruction of removing large volumes of trees from this landscape. Thank you for your time and consideration.

Sincerely,

Kirsten McDade

Pollution Prevention Specialist

**Resources:**

1David P. Turner, Greg J. Koerper, Mark E. Harmon & Jeffrey J. Lee. 1995. Carbon sequestration by forests of the United States. Current status and projections to the year 2040, Tellus B: Chemical and Physical Meteorology, 47:1-2, 232-239, DOI: [10.3402/tellusb.v47i1-2.16043](https://doi.org/10.3402/tellusb.v47i1-2.16043).

2Ackerman, F. and Stanton, E.A. 2008. The Cost of Climate Change: What We’ll Pay if Global Warming Continues Unchecked. The Natural REsources Defense Council Publications Department. New York, NY. 42 p.

3Harmon, M. E, Ferrell, W.K., and Franklin, J.F. 1990. Effects on Carbon Storage of Conversion of Old-Growth Forests to Young Forests. Science, Vol 247, Issue 4943, pp. 699-702. DOI: 10.1126/science.247.4943.600

4Rowlend, Mary M., et al. 2018. Modeling Elk Nutrition and Habitat Use in Western Oregon and Washington. *Wildlife Monographs*, vol. 199, 2018, pp. 1–69. *JSTOR*, www.jstor.org/stable/26612953.

5Stewart, O. C. (2002). *Forgotten fires: Native Americans and the transient wilderness*. University of Oklahoma Press.

6Miller, M., Emmingham, W. (2001). Can Selection Thinning Convert Even-Age Douglas-Fir Stands to Uneven-Age Structures? Western Journal of Applied Forestry, Volume 16, Issue 1, pp. 35–43. <https://doi.org/10.1093/wjaf/16.1.35>

7Chen, J., Franklin, J.A., Spies, T.A. (1995). Growing season microclimatic gradients extending into old-growth Douglas-fir forests from clearcut edges. Ecol. Appl., 5 (1995), pp. 74-86. <https://doi.org/10.1016/0168-1923(93)90061-L>